TRANSMISSION SYSTEM ENGINEERING

SPECIFIC COMMENTS

1. **Page 5.5-1, First Paragraph:** Please revise this paragraph to note that the Phase II Interconnection Study is not required for staff to determine the need for downstream transmission facilities.

   The California Independent System Operator (California ISO) Queue Cluster 3/Queue Cluster 4 Phase II Interconnection Study (QC3/QC4 Phase II Study) is not available for staff to review at this time. The Phase II Study ~~is required for~~ would allow staff to ~~determine the~~ refine its analysis of the potential need for downstream transmission facilities. However, if ~~Without~~ the Phase II Study is not available when the FSA is to be published, staff will make a conservative assumption about the need for downstream transmission facilities based on the Phase I Interconnection Study, which is available. Staff will ~~staff cannot~~ determine if the proposed interconnection facilities including the Rio Mesa Solar Electric Generating Facility (Rio Mesa SEGF) 230 kilovolt[1] (kV) switchyard, a single 230 kV overhead generator tie-line, and the termination at the proposed Southern California Edison (SCE) Colorado River Substation are adequate and in accordance with industry standards and good utility practices. Staff will also ~~cannot~~ determine if the Rio Mesa SEGF is acceptable according to engineering laws, ordinances, regulations, and standards (LORS).

2. **Page 5.5-4, Last Paragraph:** Please make the following change: The high side of each transformer would be connected through a 230 kV 1,200-ampere disconnect switch via a ~~795 kcmil~~ XLPE insulated underground cable with 1 conductor per phase to the Rio Mesa SEGF common area switchyard which is in a ring bus arrangement. The three circuit breakers and ~~two~~ nine disconnect switches in the project switchyard are each rated at 2,000-ampere.

3. **Page 5.5-6, Fifth Paragraph:** Please revise this paragraph to note that the Phase II Interconnection Study will allow for a less conservative evaluation of the need for downstream transmission facilities, compared to solely using the Phase I Interconnection Study.

   CEQA requires the analysis of reasonably foreseeable consequences of proposed projects based on the best available information. The California ISO is the reliability authority for generator interconnections and its Phase I Study for the Rio Mesa SEGF provides the best available information on the reliability impacts of the proposed project. However, the significant reduction in the number of generators studied in the QC3 and the reduction of Rio Mesa SEGF generation reduce the study results to speculation. The Phase II Interconnection Study will allow staff to make a less conservative evaluation of the need for downstream transmission upgrades ~~It is not possible to determine the impacts of the proposed project or even the cluster of~~

[1] The Rio Mesa SEGF Application for Certification uses both 220 kV and 230 kV interchangeably.

~~generators~~ because the size of the cluster has decreased ~~so dramatically~~. The revised QC3/QC4 projects including the 500 MW Rio Mesa SEGF will be analyzed in the Phase II Interconnection Study and will provide a less conservative but more precise ~~much better~~ forecast of the reliability impacts of the Rio Mesa SEGF and its associated cluster of generators (URS 2012a).

4. **Page 5.5-7, Compliance With LORS, First Paragraph:** Please revise this paragraph to note that the Phase II Interconnection Study is not required for staff to determine the need for staff to evaluate the Project's compliance with applicable LORS.

   The proposed interconnecting facilities include the Rio Mesa SEFG 230 kV switchyard, a single 230 kV overhead generator tie-line, and the termination at the proposed SCE Colorado River Substation. ~~Since the QC3/QC4Phase II Interconnection Study is not available, staff cannot determine whether the proposed interconnecting facilities are~~ Based on the Phase I Interconnection Study, the proposed interconnecting facilities are adequate and in accordance with industry standards and good utility practices, and are acceptable to staff according to engineering LORS. ~~Once the~~ If the Phase II Interconnection Study is available before the Final Staff Assessment is published ~~received~~, staff will incorporate the updated information into our analysis and provide the updated analysis and conclusions in the Final Staff Assessment.

5. **Page 5.5-8, Conclusions and Recommendations:** Please revise this paragraph to note that the Phase II Interconnection Study is not required for staff to determine the need for downstream transmission facilities. In addition, please delete the paragraph titled "Additional Information Staff Requires From The Applicant In Order To Complete The FSA." Deletion of this paragraph is necessary to reflect the fact that completion of the Phase II Interconnection Study is outside Applicant's control.

   CONCLUSIONS AND RECOMMENDATIONS

   The California ISO QC3/QC4 Phase II Interconnection Study will not be available for staff to review until November 2012 at the earliest. The Phase II Study will allow staff to provide a less conservative but more precise analysis of the ~~is required for staff to determine the potential need for~~ cumulative impacts associated with downstream transmission facility upgrades. However, based on the Phase I Interconnection Study, Staff is able to conservatively determine that, based on the Phase I Interconnection Study, the proposed interconnecting facilities are adequate and in accordance with industry standards and good utility practices, and are acceptable to staff according to engineering LORS.

   ~~Without the Phase II Interconnection Study, staff cannot determine if the proposed interconnection facilities including the Rio Mesa SEGF 230 kV switchyard, a single 230 kV overhead generator tie-line, and the termination at the proposed SCE Colorado River Substation are adequate and in accordance with industry standards and good utility practices, and are acceptable to staff according to engineering LORS.~~

   ~~Also, if the study shows the project would cause any transmission line overloads that might require transmission line reconductoring or other significant downstream upgrades, the potential environmental impact of these upgrades would need to be analyzed pursuant to CEQA. Until this information is in hand, however, it is unclear how long the additional analysis would take to perform.~~

~~**ADDITIONAL INFORMATION STAFF REQUIRES FROM THE APPLICANT IN ORDER TO COMPLETE THE FSA**~~

~~To complete the FSA, the applicant is required to submit a copy of the QC3/QC 4 Phase II Study for staff to determine the potential need for downstream transmission facility upgrades.~~